

## BT300 VFD Bypass Option EMC Filter Package

### Product Description

The EMC Filter cleans the three-phase power input to a BT300 VFD Bypass Option.



### Expected Installation Time

- Frames 4 & 5: 15 minutes
- Frames 6 & 7: 30 minutes

### Warning/Caution Notations

- This equipment generates, uses, and radiates radio frequency energy. If not installed and used in accordance with the instructions manual, may cause interference to radio communications.
- Operation of this equipment in a residential area may cause interference. At their own expense, users will be required to take whatever measures to correct the interference.
- Main short circuit protection and disconnect by others. Branch circuit protection to be provided by installer per UL508A, if not provided with drive.

**Note:** Bypass with EMC Filter package has been tested and found to comply with the limits for a Class A digital devices, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against such interference when operated in a commercial environment.

<p><b>WARNING:</b></p>		<p>Serious injury, death, or severe equipment damage could occur if a procedure or instruction is not followed as specified. Le non respect d'une procédure ou instruction peut provoquer des blessures graves voir mortelles ou endommager l'équipement</p>
<p><b>NOTICE</b></p>		<p>Equipment damage or unwanted operation may occur if a procedure or instruction is not followed as specified. Le non respect d'une procédure ou instruction peut endommager l'équipement ou entraîner un fonctionnement intempestif.</p>

### Prerequisites

- Check for shipping damage. In the event of damage, contact the transport company.
- Bypass Option must be previously installed.

## FS04 EMC Kit Installation

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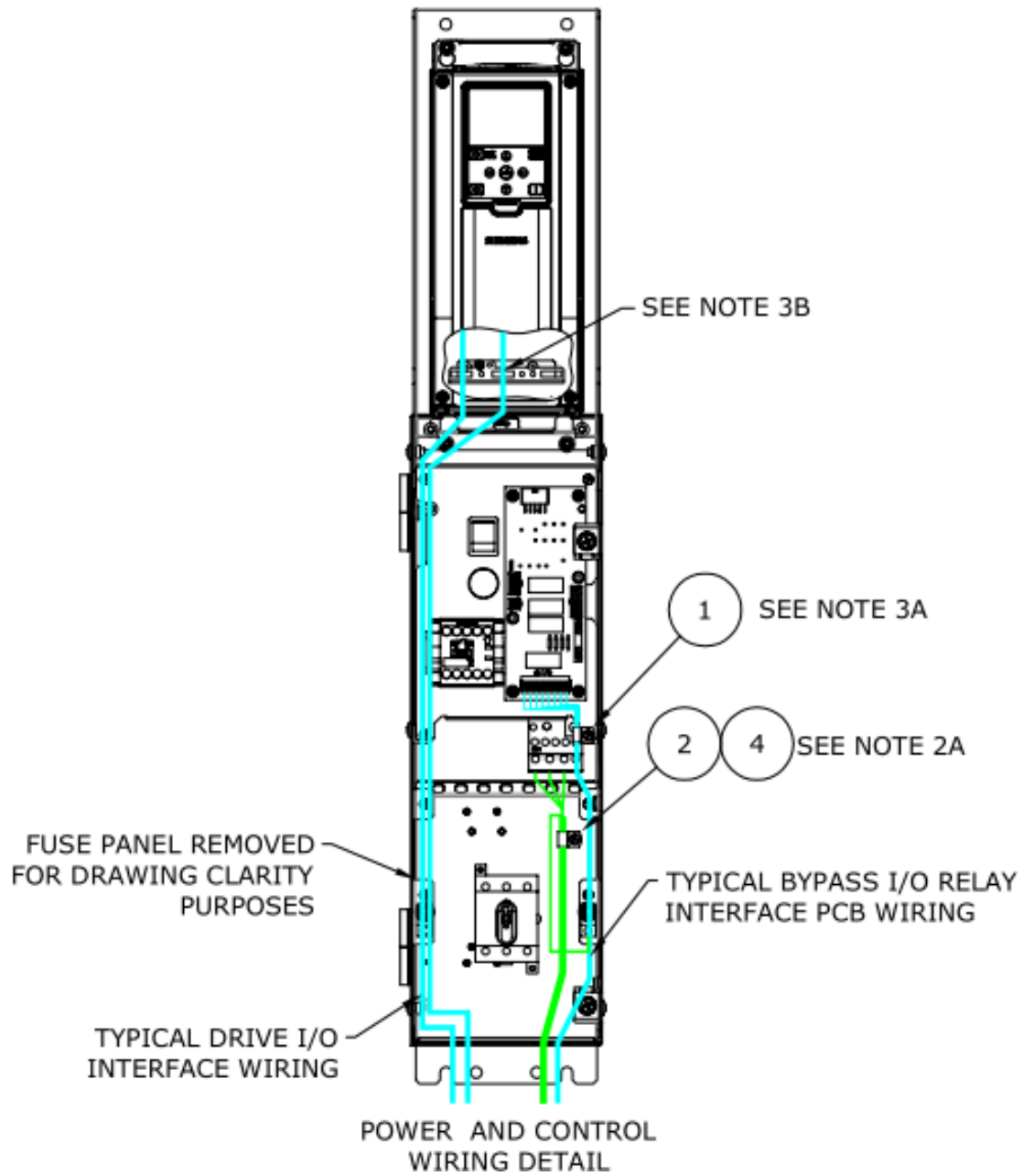
FS04 Parts List		
Item	Description	Qty
1	0.18 Diameter Clamp	1
2	0.25 Diameter Clamp	1
3	Intermediate Wire Tie	5
4	M5 x 16mm Screw	1

1. Line Power Cabling: No special requirements.
2. Motor Power Cabling:
  - A. Loop grounding clamp (Item 2) to fit 14 AWG VFD style cable and fasten to foot with Item 4. Ref Americable Part Number 37-108.
  - B. Shield is to be connected to the motor via an EMC style conductive gland or of the like.
3. Control cabling:
  - A. Loop grounding clamps (Item 1) to fit 8 conductor 22 AWG control cable. Ref. Belden Part Number 9944. For other cable sizes, see Keystone Electronics Part Numbers 8100-8113.
  - B. Use existing grounding lamella furnished with bypass to properly connect shield of control wiring to drive earthing plate.
4. Install Item 3 to control wiring as required to ensure adequate wire separation to power wiring.

# Installation Instructions

Document No. DPD01589

May 8, 2014



## FS05 EMC Kit Installation

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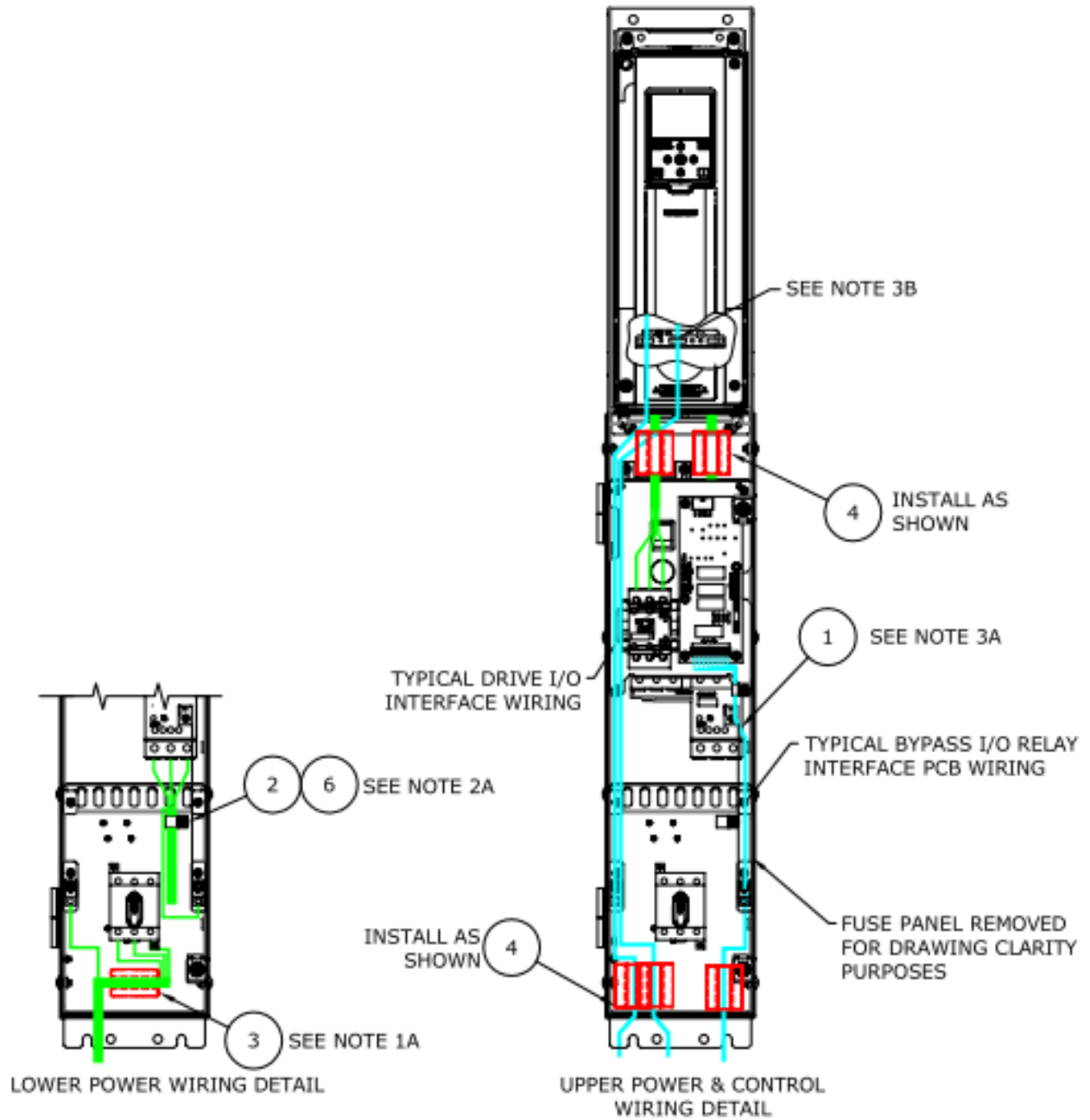
FS05 Parts List		
Item	Description	Qty
1	0.18 Diameter Clamp	1
2	0.44 Diameter Clamp	1
3	Toroid Assembly	1
4	Small Clamshell Toroid	5
5	Intermediate Wire Tie	5
6	M5 x 16mm Screw	1

1. Line Power Cabling:
  - A. Cabling to pass thru Item 3 prior to connecting to bypass input device.
2. Motor Power Cabling:
  - A. Loop grounding clamp (Item 2) to fit 8 AWG VFD style cable. Ref. Americable Part Number 37-108.
  - B. Shield is to be connected to the motor via an EMC style conductive gland or of the like.
3. Control Cabling:
  - A. Loop grounding clamps (item 1) to fit 8 conductor 22 AWG control cable. Ref. Belden Part Number 9944. For other cable sizes, see Keystone Electronics Part Numbers 8100-8113.
  - B. Use existing grounding lamella furnished with bypass to properly connect shield of control wiring to drive earthing plate.
4. Install Item 5 to control wiring as required to ensure adequate wire separation to power wiring.

# Installation Instructions

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## FS06 EMC Kit Installation

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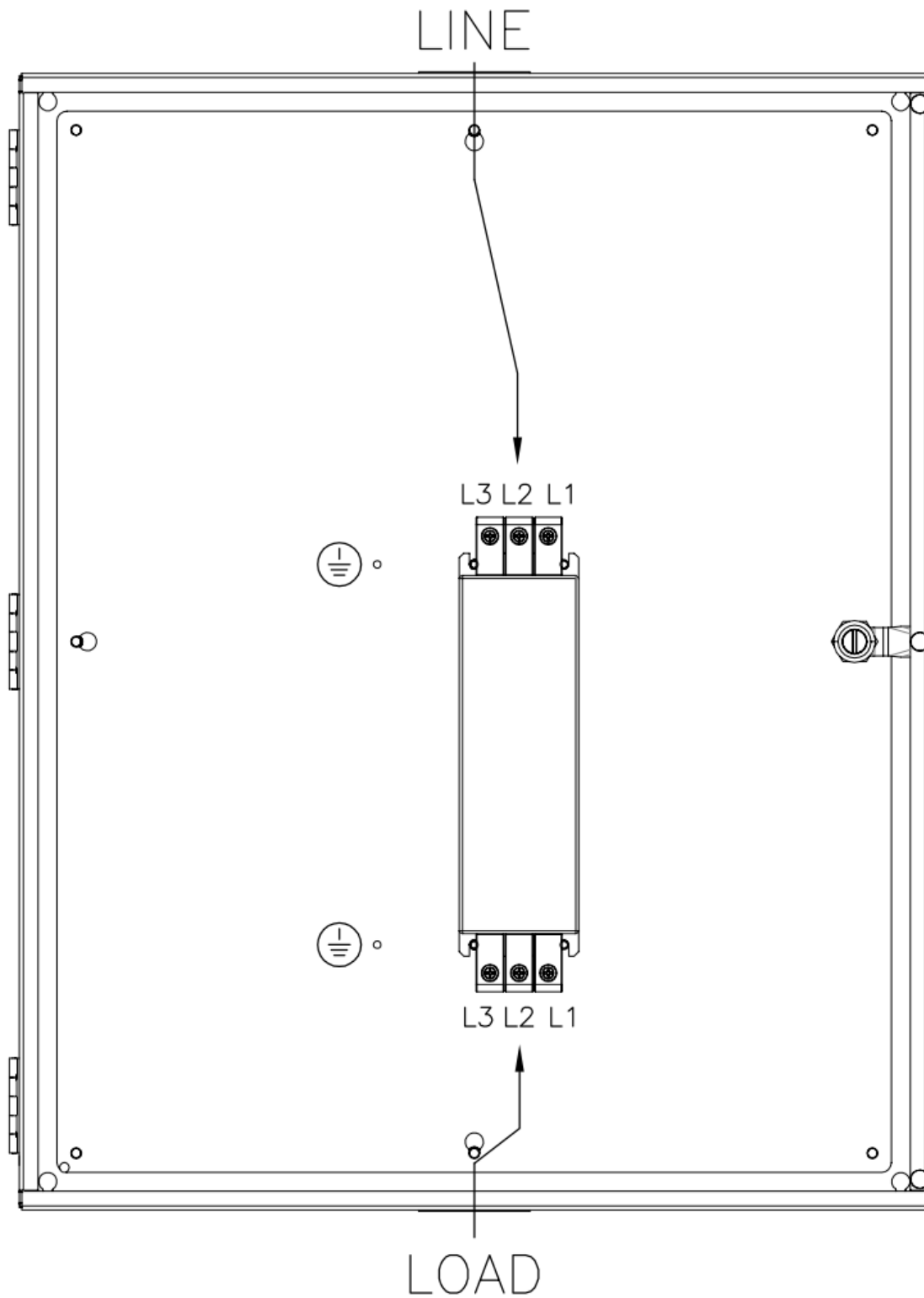
FS06 Parts List		
Item	Description	Qty
1	0.18 Diameter Clamp	1
2	0.75 Diameter Clamp	1
3	Small Clamshell Toroid	3
4	Large Clamshell Toroid	2
5	Input Filter	1
6	Filter Enclosure	1
7	Intermediate Wire Tie	5
8	M5 x 16mm Screw	1

1. Line Power Cabling:
  - A. Maximum load side cable length from input filter to bypass input device not to exceed 48.0".
  - B. Ensure ground connection is employed between load side of filter and bypass input ground terminal.
2. Motor Power Cabling:
  - A. Loop grounding clamp (Item 2) to fit 4 AWG VFD style cable. Ref. Americable Part Number 37-108.
  - B. Shield is to be connected to the motor via an EMC style conductive gland or of the like.
3. Control Cabling:
  - A. Loop grounding clamps (Item 1) to fit 8 conductor 22 AWG control cable. Ref. Belden Part Number 9944. For other cable sizes, see Keystone Electronics Part Numbers 8100-8113.
  - B. Use existing grounding lamella furnished with bypass to properly ground control wiring to drive earthing plate.
4. Install Item 7 to control wiring as required to ensure adequate wire separation to power wiring.

# Installation Instructions

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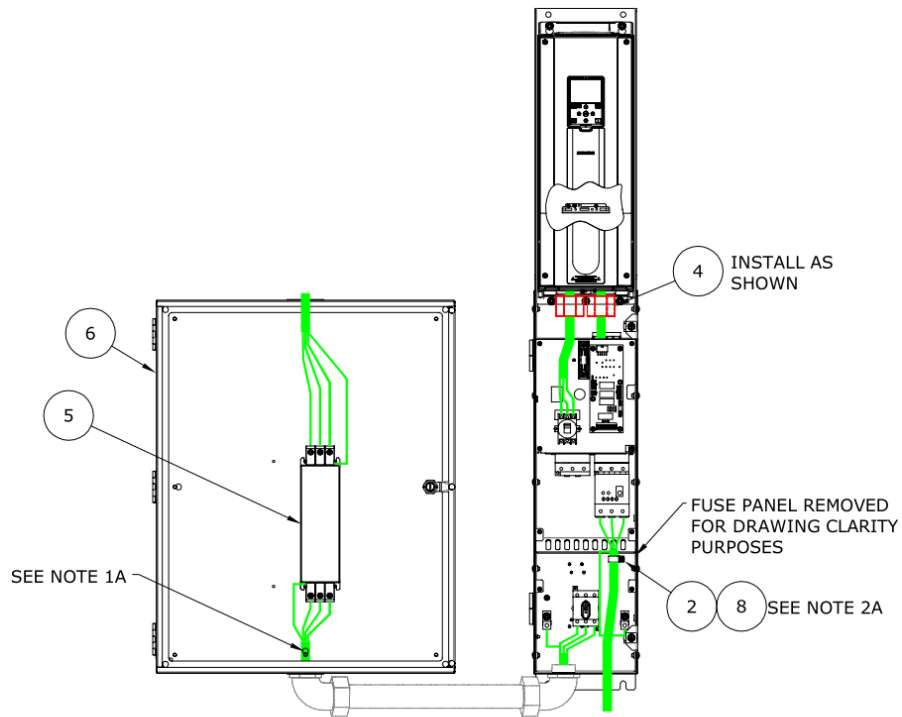
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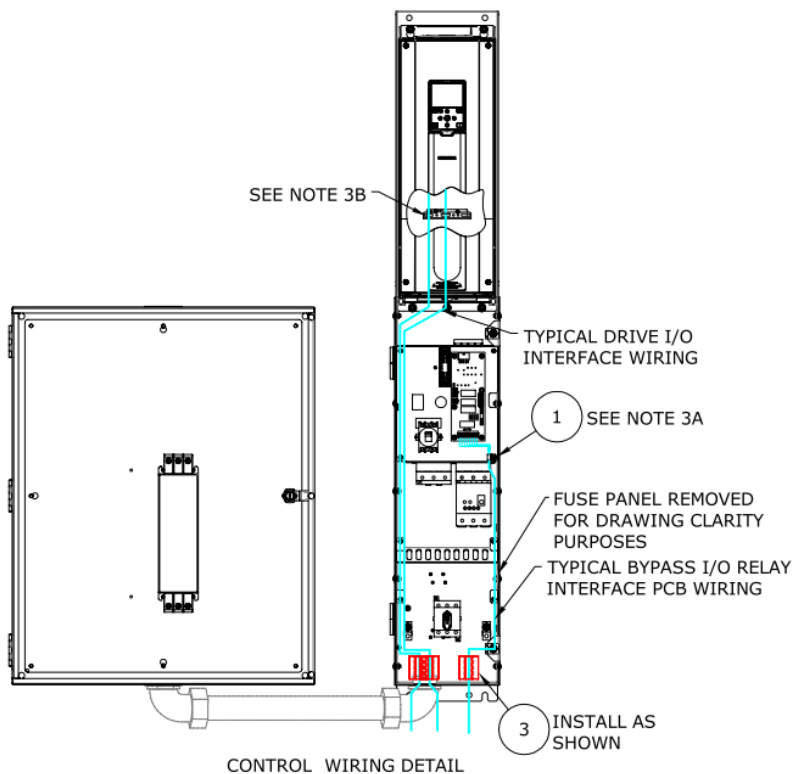
# Installation Instructions

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POWER WIRING DETAIL



CONTROL WIRING DETAIL



## FS07 EMC Kit Installation

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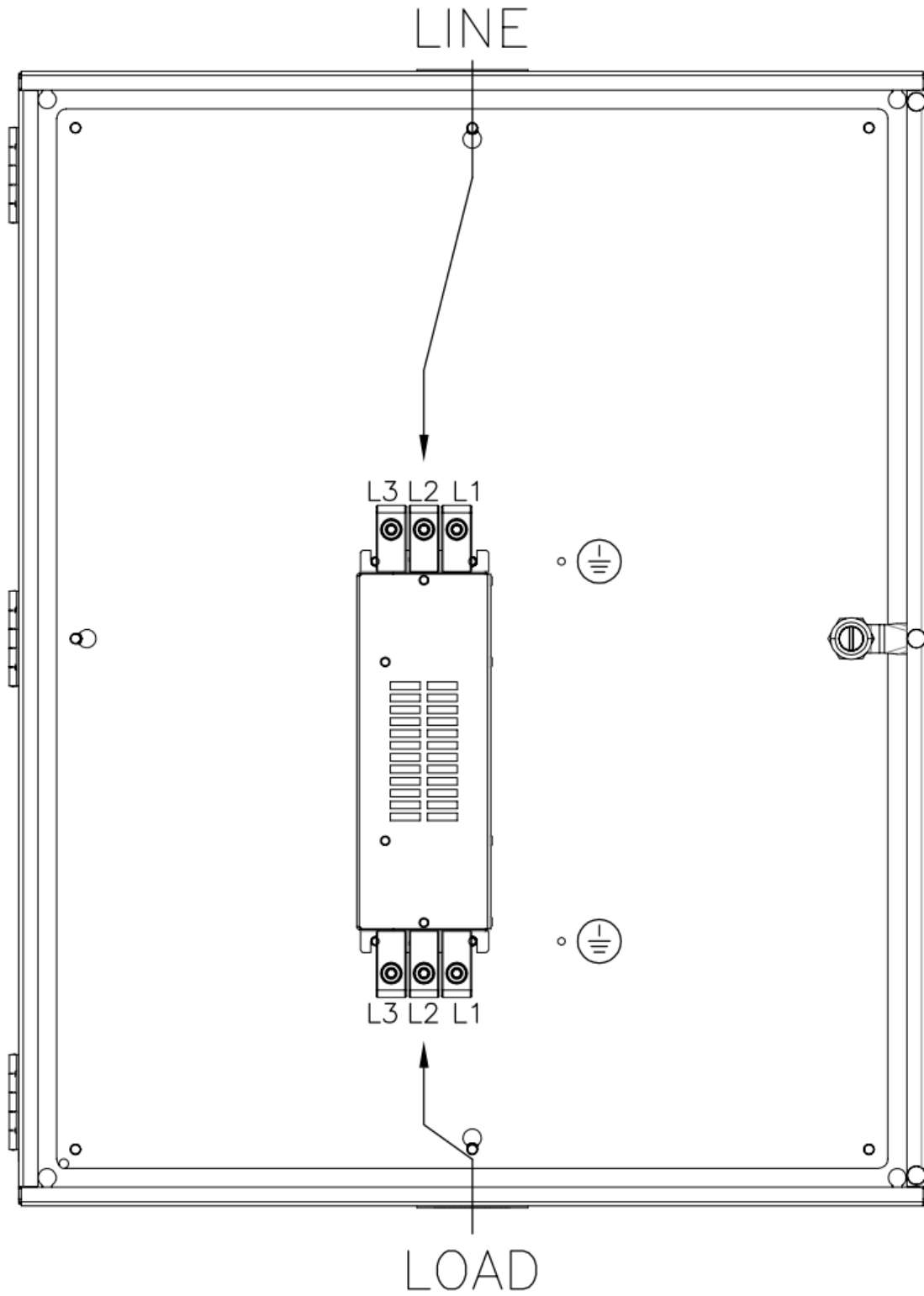
FS07 Parts List		
Item	Description	Qty
1	0.18 Diameter Clamp	1
2	0.75 Diameter Clamp	1
3	Small Clamshell Toroid	3
4	Large Clamshell Toroid	2
5	Input Filter	1
6	Filter Enclosure	1
7	Intermediate Wire Tie	5
8	M5 x 16mm Screw	1
9	M4 x 10mm Screw	1

1. Line Power Cabling:
  - A. Maximum load side cable length from input filter to bypass input device not to exceed 48.0".
  - B. Ensure ground connection is employed between load side of filter and bypass input ground terminal.
2. Motor Power Cabling:
  - A. Loop grounding clamp (Item 2) to fit 1 AWG VFD style cable. Ref. Americable Part Number 37-108.
  - B. Shield is to be connected to the motor via an EMC style conductive gland or of the like.
3. Control Cabling:
  - A. Loop grounding clamps (Item 1) to fit 8 conductor 22 AWG control cable. Ref. Belden Part Number 9944. For other cable sizes, see Keystone Electronics Part Numbers 8100-8113.
  - B. Use existing grounding lamella furnished with bypass to properly ground control wiring to drive earthing plate.
4. Install Item 7 to control wiring as required to ensure adequate wire to power wiring.

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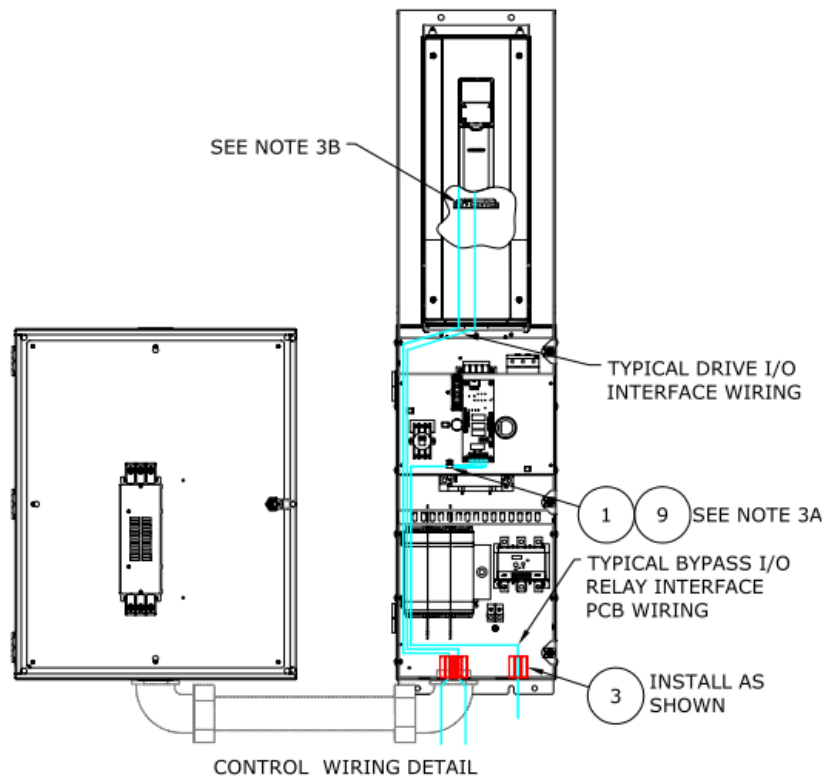
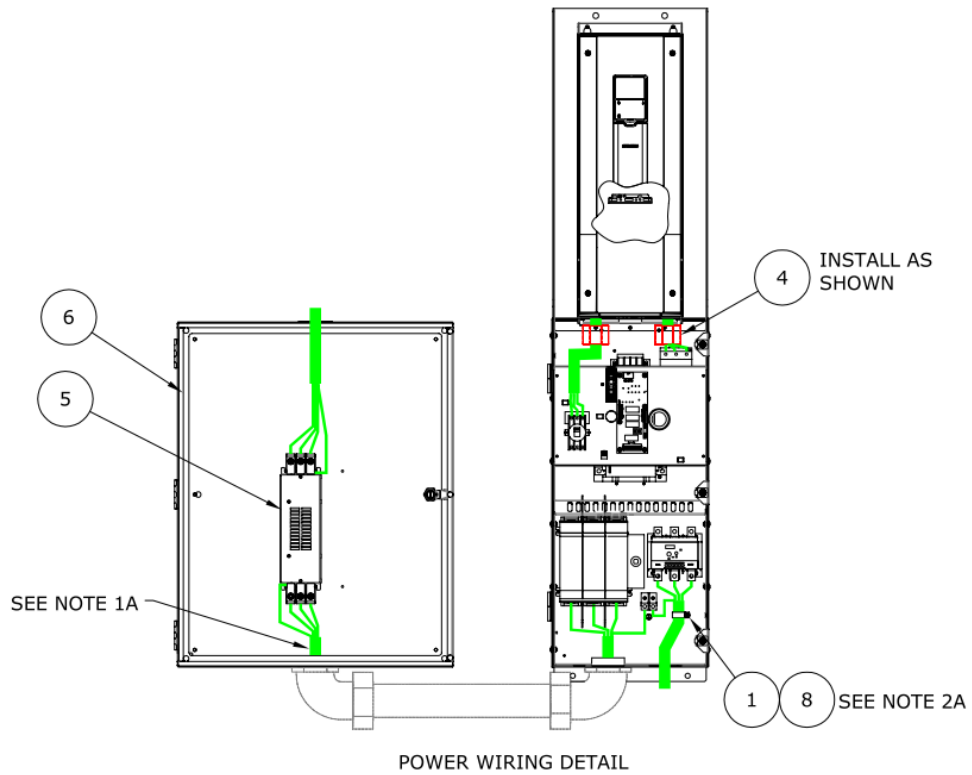
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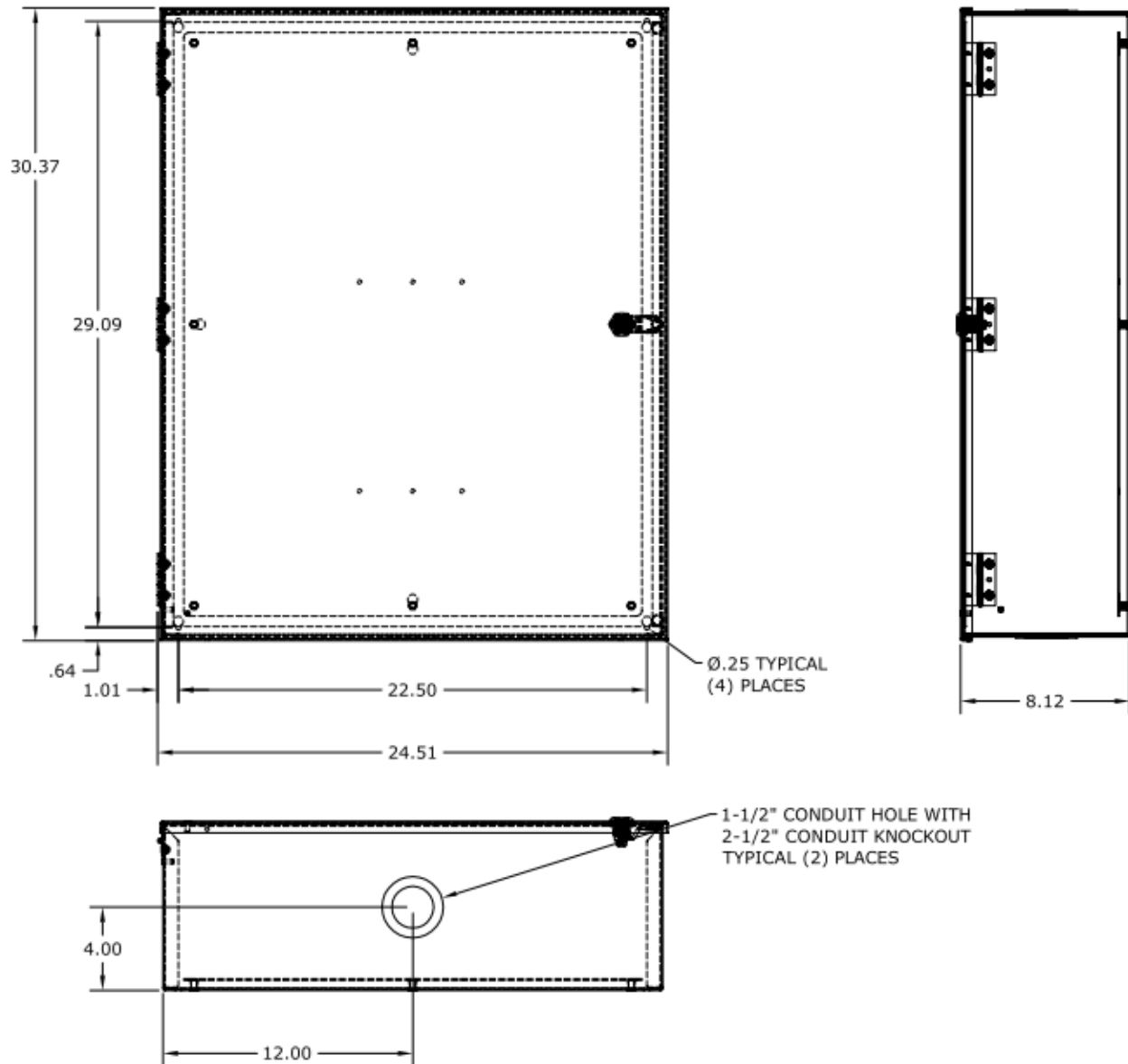
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EMC Filter Enclosure for FS06 & FS07

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